

PHILADELPHIA MEDICAL TIMES.

SATURDAY, JANUARY 31, 1874.

ORIGINAL COMMUNICATIONS.

SPINAL CONGESTION AND LOCOMOTOR ATAXIA.

BY GEORGE M. BEARD, M.D.

(Concluded from page 259.)

IN regard to posterior spinal sclerosis, to which spinal congestion sometimes leads, I have these remarks to offer:

1. The great exciting causes of the disease are exposure to wet and cold, mechanical injury, and syphilis. It is a fact not thoroughly appreciated by the profession or by the people, that it is as possible to take cold in the cord as in the lungs. Those who sit for a long time on the cold, damp ground, or ride all day in an open buggy, or sleep in a draft of air, or suddenly leave off in cold weather the underclothing, or sit for hours with wet or even damp feet, and in chilly rooms, or work all day exposed to showers and biting winds, or lie down to rest in wet garments, render themselves liable to take cold in the spinal cord. Cold in the cord manifests itself just as cold anywhere else manifests itself,—that is, by congestion; and if the colds are repeated, the congestion becomes a fixed condition that is not easily resolved, and in time may go on to the condition known as posterior spinal sclerosis, or locomotor ataxia.

The connection between this structural lesion of the cord and exposure to wet and cold is not always directly apparent, is but rarely suspected by the patient, and almost never inquired into by the physician, partly because of its remoteness, and partly because the professional mind, at least, has been diverted in the direction of sexual excess as the one great cause of ataxia. The connection is remote because a long time, usually months and years, intervenes between the exposure that gave rise to spinal congestion and the sclerosis of the posterior column to which neglected and repeated congestions lead. In the case of the cold on the lungs or bronchial tubes, the bad effects follow speedily, and some of the symptoms are tolerably well recognized even among the laity. A cold in the cord manifests itself by symptoms of which the people know little or nothing, and to which the great body of the profession has given but fragmentary attention. It is oftentimes only by close and careful questionings, repeated at different visits, that we are able to trace the relation between ataxy and congestion resulting from cold.

The mechanical injuries that most frequently give rise to sclerosis of the cord are severe blows and falls, or the shock of accidents of almost any kind. It is not necessary that the injury, whatever it may be, should be received on the spine or head, in order to cause symptoms of ataxy. A violent concussion from any injury that is directly felt on the arms or legs may have the same effect as a direct injury to the back. A mechanical injury may cause

chronic inflammation of the cord that may attack either the posterior column alone, or both the posterior and anterior columns. There is sometimes a loss of both sensation and motion, showing that the cord is involved through its whole diameter; as in the case of taking cold in the cord, the ataxy-symptoms may not follow the injury until after several weeks or months. In a case of ataxy,—a medical man who was under my care, and for whom I testified in court,—there was indubitable evidence that the disease was the direct effect of an injury from falling while attempting to get on a horse-car; but the ataxy-symptoms did not appear at once, and were not even suspected by the patient at the time the suit was commenced, and hence much less damages were claimed than would have been claimed had it been known that he was to suffer from so grave a disease of the cord.

2. The cord is predisposed to take cold by any causes that tend to exhaust it. Among the more prominent of these causes are long marching or violent and wearying muscular exertion of any kind, especially of the sort that draws heavily on the lower part of the cord, excessive intellectual exertion, and sexual excesses. The two latter predisposing causes, excessive intellectual exertion and sexual excesses, operate far less frequently than the purely physical causes. It is muscular more than mental over-exertion that produces that peculiar kind of weakness of the cord that invites congestion and inflammation with degeneration. It is not so much among brain-workers as among muscle-workers, not so much among the delicate, the finely organized and sensitive, as among the coarse, the hardy, and the comparatively tough-fibred classes, that we meet with the most cases of ataxia. It is a disease not of the weak, but of the strong. It is notoriously unfrequent among females,—and females, in modern days at least, are far more delicate than males. The majority of the cases, I am disposed to believe, are those who are, or have been, more or less exposed, whose labors are largely, if not entirely, physical, or who, if they live by brain-work, have been at some time or in some way considerably exposed. If two persons of the same age, both of fair constitution, were subjected to precisely the same mechanical injury, I should expect that the one with the coarser temperament would be more likely to develop the symptoms of sclerosis of the cord. Patients of either sex who are specially nervous or hysterical are not liable to structural lesions of the cord. A kind of antagonism, indeed, seems to exist between the distinctively nervous temperament, the *anæmic* condition of the system, and chronic inflammations of the central nervous system of any form; and when such pathological states do arise in these nervous people, the prognosis seems to be better, and they yield more kindly to treatment, than when they arise in those of a stronger and coarser type.

In regard to the supposed influence of sexual excesses on this disease, the profession must revise its opinion. That sexual excesses constitute an important factor in the causation of nervous diseases must be admitted, but it is not structural so

much as functional diseases that they excite; not inflammation, but exhaustion with anæmia, or perhaps alternations of anæmia and hyperæmia, neurasthænia or nervous exhaustion, cerebrosthænia or exhaustion of the brain, myelasthænia or exhaustion of the spinal cord, hysteria, hypochondriasis, spasms and neuralgias. These are the diseases that sexual abuse invites or aggravates. Organic diseases, with a *coarser* pathology, have usually an entirely different origin. The one maxim in medicine to which my studies lead me is that *functional excess primarily causes functional disease*. Over-use of the brain causes functional disease of that organ; over-use of the stomach causes functional dyspepsia; over-use of the sexual organs causes functional debility of those organs, or of the whole central nervous system. Structural disease may follow all these excesses, but not usually, unless the excess is supplemented by some outside influence. A man may be *worried* into insanity, but not often is he *worked* into it; the stomach may be structurally diseased by bad food, but not, as a rule, by simple overloading with good food; and sexual excess, to excite organic disease, must not only be very excessive, but must be reinforced by other disease-provoking forces.

It is true enough that inquiry into the personal habits of ataxic patients very often elicits the confession that at some period of their lives they have been guilty of what may be regarded as sexual excess; but are they therefore sinners above all other Galileans? How many healthy men in the world are there who have not at some time abused their sexual organs? And yet ataxy is comparatively a rare disease, and those who are its victims do not give any more evidence of excesses than thousands and tens of thousands who will never know what ataxy means.

I have studied this subject closely and carefully with nearly every case that has fallen under my observation, and I am persuaded that, at most, sexual excess can be nothing more than a predisposing cause of ataxy, and that, in this relation even, it does not occupy the first place, if, indeed, it does the second place; and that therefore the minds of our poor patients should in this regard be disabused, that they may not add to the sufferings of their sufficiently terrible disease the agonies of useless remorse.

One plausible reason for suspecting that sexual excess is the cause of ataxy is found in the unnatural sexual desire that so often precedes the ataxic symptoms. The increase of desire naturally calls the attention of the patient to the sexual organs, and almost compels a certain amount of abuse; and when questioned concerning his habits, it is no marvel that he recalls and confesses his recent experience in this respect. Now, this increase of sexual desire is often, if not always, the *effect* of spinal congestion, by which the cord is rendered excessively active; it is a sign, not of health, but of disease. It is not, however, nor is the abuse which it invites, the cause of the degeneration of the cord into which congestion leads.

The most, then, that can be said of sexual abuse

in its relation to ataxy, is that, by weakening the cord, it may in certain temperaments prepare the way for colds, mechanical injuries, or, perhaps, for syphilis to enter in and take possession.

Prognosis.—The prognosis of this disease under electrical treatment alone, or in combination with drugs, may be thus generally stated. A very small proportion of cases apparently recover; a considerable number are very greatly benefited in all the leading symptoms; about the same number are but slightly benefited; and in a few cases absolutely nothing is accomplished.

The proportion of absolute cures is so small that there is a natural temptation to doubt the diagnosis or pathology of any reported cure. The cases that are brought on by mechanical injury, especially by concussion, offer the best prognosis; and this is true, I believe, of other nervous disorders. The explanation would appear to be that the disease excited by concussion is of a temporary, and comparatively transient, character, and the character of the lesion is far less severe than in those cases that come on slowly, through long years of incubation. In my observation, the most satisfactory improvement has been in those cases of ataxy that were brought on by concussion. This is also true of paralysis in general, excepting, of course, those cases where the spinal cord is directly and seriously injured.

Most of the published statements in regard to the prognosis of the disease under electricity, as indeed under any other form of treatment, must be received with great caution. Many of the physicians who report the cases have perhaps never before seen a case where they made the diagnosis of ataxy, and in the instance that they publish there is much probability of deception; and this probability is increased if the patient perfectly and permanently recovers. Hysteria comes in to complicate the diagnosis, and some of the reported cures have been, without doubt, of an hysterical character. Spinal congestion is very often mistaken for spinal sclerosis; the symptoms run into each other, and the former in some cases leads to the latter. But spinal congestion is relievable and curable, while spinal sclerosis is rarely so. Some of the supposed cures have been very likely simply remissions in the course of the disease.

I make these remarks not by way of discouragement, but rather to correct two opposite and prevailing errors: first, that ataxy is incurable; secondly, that it is frequently cured. It is midway between these extremes that the truth lies. The prognosis under treatment by electricity is favorable enough to give us encouragement to try our best, and to persevere. Sclerosis is to the spinal cord what tuberculosis is to the lungs; *tabes dorsalis* (such was the old name of ataxy) and *tabes pulmonalis* are in prognosis alike bad and dreary. Both diseases mean business, and come to stay. Neither yields without a struggle,—a long one and a hard one. Both are treacherous, and may suddenly reappear when we suppose them to have fled forever. But the prospect in consumption, bad as it is, is yet sufficiently good to stimulate us to the hardest efforts to fight the enemy. It is very different from cholera,

when we give our powders every hour until the patient dies. Now and then a consumptive patient gets well, and remains well; there are many who, by hygiene and treatment, will lengthen their lives by months or years, and wonderfully mitigate suffering. There are others over whom the disease marches like an overwhelming flood, bearing everything before it. Now, to all this spinal sclerosis is parallel, with this difference, that its progress is very much *slower* than that of tuberculosis. Consumption is a disease of months; ataxy is a disease of years. So far as I know, only one of the cases that I have seen has died; and in his case the disease was complicated, and he was guilty of great imprudence. I have known of a number of cases where the patients have lived ten, fifteen, and twenty years, and are living, and in some cases useful and tolerably happy, to-day.

It has been the fashion among some to decry all attempts to treat locomotor ataxy, because, as they say, the pathology is against us. They who say this forget three things: *first*, that it is possible by treatment to *arrest* disease when you cannot cure it. What should we say of a farmer who would make no efforts to stay a conflagration that had already destroyed half his forest, and, unless stopped, would soon destroy all the rest, and perhaps his house with it? To arrest a disease in certain stages sometimes amounts to a substantial cure. Every organ of the body is given in excess of actual needs of existence: we have more liver, more stomach, more lungs, very much more sexual power, and even more of brain and of spinal cord, than are required for simple existence or even for tolerable health and happiness. Experience has demonstrated over and over again, is indeed constantly demonstrating on every hand, that the liver and stomach may be so seriously diseased as to lose a considerable fraction of their functional capacity, that the sexual power may be half destroyed, that a large fraction of a lung may be obliterated, that even a portion of the brain may be scooped out, and yet the man thus maimed remain measurably strong and active and happy and attain a good old age. If, now, one can get along with half or three-quarters of stomach, or liver, or lung, or sexual power, or with nine-tenths of a brain, why may we not get along with perhaps three-quarters or four-fifths of a spinal cord? And if the treatment of ataxy is begun in time, while yet only one-quarter or one-third of the cord is degenerated, why may not the disease be arrested at that point, and the rest of the cord saved? In tuberculosis, as every dissecting-room reveals, there may be positive arrest of the morbid process at various stages; the ruined portion of the lung is not restored, but the healthy portion is saved further ravages, and the scar and cavity remain, and the patient dies years and years afterwards of some other disease. Now, if it were as easy and as common to examine the cord as it is to examine the lungs, I suspect that not a few cases would be found where sclerosis had begun but had stopped,—the diseased portion remaining diseased, and the healthy portion doing the duty of the whole cord, and allowing the patient to die of some other disorder.

Secondly, the skeptics forget that the portion of the cord not diseased may be stimulated and toned and strengthened by treatment so that it does its duty better. Different parts of an organ may act vicariously, so that when one is injured the other may in a measure take its place. Something in the nerve-force imperfectly analogous to collateral circulation takes place, we may believe, in any localized disease of the cerebral nervous system; for organs and parts of an organ but rarely do their uttermost in every direction, as enormous force is kept in reserve only to be called out in great crises. Disease of any part of an organ calls out this reserve force; and the application of electricity—one of the most potent of all means for improving nutrition—and the use of tonics and nerve-food may enable the overworked organ to perform its extra duty without exhaustion.

Thirdly, these critics forget that bad and painful symptoms may be relieved, even when the disease is not arrested. The anæsthesia and the hyperæsthesia, the numbness and the horrible neuralgic pains of ataxia, may be relieved greatly by electrical treatment rightly directed, even when the lack of co-ordinating power is not a whit improved. Again, coming back to my illustration, what intelligent physician is there who coldly folds his arms in the presence of consumption in the first or even second stage? Do we not all of us rather send our patients South and West, and beyond the sea? Do we not ply them with cod-liver oil and phosphates, with good food and gay society, in the hope and expectation that there is possibly one chance in ten of a cure, and one chance in ten of grateful relief and prolongation of life? With a similar hope may we treat our ataxic patients with electricity, ergot, phosphorus, and nitrate of silver,—and to all these we may add hygiene, especially in the form of *rest*; which, as Dr. Mitchell has well pointed out, is of much efficacy in this disease. It used to be said that if a man got well of consumption he never had consumption. We now know better. The question has ceased to be a question at all. A few years since, a friend of mine—one of our most eminent and laborious editors—consulted me for symptoms so serious that I took him for consultation to Dr. Austin Flint, who made a clear diagnosis of tuberculous deposit in one lung. Under time, hygiene, and cod-liver oil and whisky, he not only improved, but, as Dr. Flint has stated, recovered, and is well to-day, and is one of the most laborious men in the land. When I was a member of Yale College, ex-President Day of that institution died at a very advanced age; and on post-mortem there was found in one lung a cavity that had healed thirty or forty years before, when he was a young man, and was expected to die of consumption.

Years hence, when our means for examining the morbid spinal cord are more complete and diffused, it is possible that we may cease to be surprised or skeptical when we hear of the cure of posterior spinal sclerosis.

Treatment.—Ataxia may be treated electrically by a combination of several different modes of

application: galvanization of the spine, central galvanization, and general faradization, when cerebral disturbance or general ataxy of the nervous system appears; galvanization of the cerebral sympathetic, and peripheral faradization with sponges and the metallic brush. All these various applications may be made with weak or strong or medium currents, according to the wants of each case.

The principles on which the electro-therapeutist treats ataxy are typical of the principles on which he will be likely to treat all forms of disease; they will of themselves suffice to indicate to what school he belongs. He who holds the half-truth that only the seat of disease should be treated will confine himself to electrization of the spine; he who cherishes the delusion that the faradaic current cannot affect the nerve-centres will use in this disease only the galvanic current; he who blindly adopts the wild generalizations about the differential action of the ascending and descending currents will prefer either one or the other direction, according to his pathological theories; he who interprets all local disease to be the result and expression of general disease will at once resort to general and central applications; he who suspects the sympathetic to be the subtle source of all human woe will furiously galvanize the cervical ganglia; he who knows nothing about pathology or theories, and cares nothing about them, will empirically treat the symptoms. The wise and well-cultured physician, with eyes open both to pathology and to experience, will try all methods, and in the light of the results will hold fast to those which in each case seem to do good. I have found good results from simply treating the leading symptom,—the anæsthesia,—without any special reference to the cord. I do this by means of the metallic brush, or by a finely-pointed metallic electrode, making the application over the feet, legs, arms, and all parts of the body that are anæsthetic. The end justifies the means. I have found more good, in some cases, from this method, than from galvanization of the spine and all the other methods combined. When the anæsthesia is profound and permanent, currents of great strength are sometimes not only not disagreeable, but positively agreeable.

In recommending this method I do not recommend exclusive reliance upon it: it is to be used in alternation with the other methods of which I have spoken. It should not be forgotten that the reflex effect of powerful peripheral faradization on the cord may be of greater service than galvanization of the spine.

I illustrate these statements by two or three cases.

Posterior spinal sclerosis; concussion of the spine complicated with attacks of aphasia and aching. Very unusual improvement under galvanization of the spine and nitrate of silver.

Dr. N., a medical gentleman, over 70 years of age, was brought to me November 9, 1872, by Dr. Corey. About six months before, the doctor undertook to get on a street-car, but, the iron support being loose, he slipped, and fell on his hip and leg, and for this he was treated surgically. He was laid up with the injury to the leg and hip for some weeks. Certain nervous symptoms also began to appear after a few weeks, but

they were not referred to any injury of the cord, and spinal sclerosis was, very naturally, not suspected. Dr. Corey had made the diagnosis of degeneration of the cord before bringing him to me, and this diagnosis corresponded with my own. The patient had a stiff and uncertain gait, and could not turn round quickly without falling, nor stand still when his eyes were closed. A strange complication was occasional attacks of utter inability to speak, accompanied with suffusion of the face and shedding of tears. These came on under any special excitement, and lasted from one to five minutes.

The anæsthesia and analgesia of the lower limbs were profound, and electro-sensibility was but slight; but there was no loss of electro-muscular contractility, and no motor disturbance whatever. There was also a deficiency of the sense of pressure, as indicated by the *piesmeter*. At night there was great pain in the back, with a sensation of numbness that often compelled him to rise and walk the room.

As the patient was entirely well at the time of the accident, and as the symptoms of sclerosis followed or at least began to appear a few weeks after the accident, and as there was no evidence of exposure of any kind, it was clearly a case of *traumatic ataxy*.

The case was subsequently brought into court, in order to collect damages of the railroad company, and was decided in favor of the patient. Being called upon to testify, I gave it as my opinion that the disease from which the old gentleman suffered was of so grave a character that he would never recover, but would be a great sufferer until he died.

I subsequently treated him by mild galvanization of the spine, and nitrate of silver, and in the course of a month he began to improve, and, what is more remarkable, the improvement continued. He did not fully recover, but came nearer to a permanent recovery than any other case that I have yet seen. He was able to resume the practice of his profession.

Posterior spinal sclerosis beginning in spinal congestion. Some improvement under faradization with the metallic brush.

Mr. D., a gentleman 50 years of age, was referred to me March 17, 1873, by Dr. T. M. Markoe. The patient was of a strong build, and of a sanguine lymphatic temperament; during his whole life prior to this disease he had known nothing but health. One year before, he had attended a sale of pews in a church, and for three hours had sat quite still in a cold room. He went there in absolute health; he came out with a feeling of numbness in the legs, which extended to the hands. He was never well again.

On examining him, I found persistent and profound anæsthesia of the hands and feet, and even of the arms and legs. Tingling and pricking and stinging sensations were felt. Sexual power was diminished, but not destroyed. He could stand with *closed eyes*, but could not turn quickly round. Tests with the dynamometer showed good, strong muscular power. At times he had suffered from sharp, shooting, neuralgic pains in the legs. The diminution in electro-sensibility was so great that very powerful faradaic currents applied with the sponge caused *little or no pain*, although the *prick of a pin was quickly felt*. The patient walked quite comfortably, and attended to his business. The treatment used at first was galvanization of the spine, combined with ergot and nitrate of silver internally; but all did no good. I then tried general faradization, and last of all faradization with the metallic brush. The latter accomplished something,—reduced the anæsthesia and relieved a little the abnormal subjective sensation.

Posterior spinal sclerosis; numbness in all the extremities; no impairment of motor power; very little neuralgic pain; remarkable feeling of coldness apparently by taking cold after exertion. Some improvement under central galvanization and nitrate of silver.

Mr. T., aged 51, married, a stone-cutter, was brought by Dr. Tuthill, February 2, 1872. Two years before, while working very hard at his trade on snowy and damp ground, he was taken with numbness and feeling of heat in his legs. All his life he had been of rather nervous organization, and was easily moved to tears. At that time there was no affection of the bladder; the sexual power was unimpaired; very little neuralgic pain, and had been little; there was no pain in the back, but the bowels were costive, and there was a feeling as of a cord around the abdomen; a feeling of heat and burning in the bottoms of the feet was noticed. His legs were *remarkably cold*; oftentimes they felt as though they *were naked*. His eyes were readily suffused with tears. After a month of treatment by central galvanization and nitrate of silver, he left, improved somewhat, but not markedly, in all the symptoms.

There are three general facts of interest in locomotor ataxia that are worthy of note.

First, it is more frequent, so far as I can learn, in the North than in the South; cold, damp climates favor its development. In the early stages, long residence in tropical or subtropical regions is worthy of trial.

Secondly, it is very often complicated with congestion and sclerosis of the anterior column. The neuralgic pains, of which so much is said, do not appear in much more than half the cases. I am not yet able to say whether they are a good or a bad symptom. One thing is sure, the worst and most obstinate cases I have yet seen had no neuralgic pains. Another point equally true is, all the characteristic neuralgic pains may exist in those who never have ataxia.

Thirdly, the results of treatment here, as in all nervous diseases, must depend on the mental organization of the patient: a strong, resolute patient will live when a feeble, timid patient may lay down his armor, give up, and die.

PRURITUS HIEMALIS.

BY JULIO J. LAMADRID, M.D.

I FIND in my note-book the following accounts of two cases of pruritus hiemalis, which so confirm the able paper recently published by Dr. Duhring in the *Philadelphia Medical Times* that I think they are of some interest:

Case I.—M. R., a young married woman, aged 20, consulted me on the 18th of October, 1872, about an itching, burning sensation upon the back, especially between and on the shoulder-blades; coming on in the evening, but more severe soon after taking off her clothes, and lasting a few hours after retiring for the night, sometimes preventing sleep, and causing a great desire for scratching, which, if gratified, as was generally the case, left the patient as bad as ever, if not worse, and seldom afforded any relief, as stated by Dr. Duhring.

Upon examination of the parts, I could not see or detect any indications of disease or eruption, except a

few marks caused by the scratching, and a peculiar look of the skin, like goose-flesh, which is often the result of cold weather. There was no indication of uncleanness or neglect of her person. On further examination of the case, I was unable to find any real cause for this trouble; but, on inquiry as to the habits of the patient, I found that the bowels were inclined to be inactive,—in fact, had not been moved for three days. Here I at once saw the indications for treatment, which consisted in the use of laxatives and such means as were in my power to produce a regular action of the bowels. In conjunction with this, I advised the sponging of the affected parts with hot water every night just before going to bed, and found it to give some relief, but often to fail to do any good. In this case I did not use the alkaline bath, as the disease began to get better as soon as the patient's bowels were once more in accordance with the laws of nature.

Case II.—William R., a merchant, aged 25, and husband of the above case, came to consult me on the 30th of October, 1872, with the same complaint as his wife. He had all the same symptoms, with the exception that the affection in this case was confined altogether to the lower extremities, especially on the legs. On examination of the parts, I could not, as in the case of his wife, find any rash or change in the texture of the skin, or see any signs of uncleanness.

On further inquiry, I learned that the patient was suffering with torpidity of the bowels and hemorrhoids. I put him under the same treatment as the above case, but in this instance I prescribed the alkaline bath, with better success than with the hot water. I also attended to his piles by means of iodoform suppositories and such ointments as are usually recommended in the text-books. I need only add that my patient got well soon after the cause was removed,—which I am satisfied was the constipation.

Before I leave this subject, I shall ask the attention of my readers to the fact that the disease in the first case was confined to the trunk or back, a thing rarely to be observed, as remarked by Dr. Duhring. Farther on he says that the disease is unaccompanied by constipation. But, according to my own observations, it is quite the opposite, and I believe this to be the real cause of the disease.

Both parties were again visited by the same trouble during last fall, and again I traced it to the same complaint,—constipation.

BROOKLYN, LONG ISLAND, January 13, 1874.

A CASE IN WHICH BOTH LEGS WERE AMPUTATED IN UTERO.

BY GERALD O'FARRELL, M.D.

NOVEMBER 20, 1873, I was called to see Mrs. A., aged 33, primipara, a native of Ireland. She stated to me that she supposed she was in the sixth month of her first pregnancy, and that she had had frequent hemorrhages during the past six weeks. On making an examination, I ascertained that she was pregnant, but so feeble was the murmur of the foetal heart that I deemed it prudent to express no opinion as to whether it was living or not, although the woman was very anxious to know.

I ordered liq. ferri persulphatis in five-drop doses every three hours, with rest in the recumbent position for two weeks.

December 24 I was called to see her again, and found that there had been no return of the hemorrhage,

but that she was in labor; the os uteri fully dilated, the membranes ruptured, and the breech presenting. The labor was completed about an hour after my arrival.

I observed as soon as the child was born that both legs had been amputated by the funis, the right being entirely removed from below the insertion of the tendon of the patella, the left just above the ankle, with the foot still attached by a small shred of skin. The stumps were cicatrizing, the centres being bright red, with patches of gray lymph on the edges. The two middle fingers of the left hand were webbed. The scalp was thickly covered with gray hair, with the exception of the anterior and posterior fontanelles, which were covered with a greenish fur, such as is seen on the cadaver in the dissecting-room. The funis was black, and became detached from the placenta on the slightest traction. The placenta was entirely adherent, but so soft as to be with difficulty removed entire. The child was a male, and lived twenty-seven hours. The trunk was much more developed than the lower extremities.

Asking the lady if she had met with any shock or accident, she informed me that just prior to the first hemorrhage she had gone to visit a friend, and had worn a very tight-fitting dress. On reaching her friend's residence she became faint, and had to be carried into the open air. From that time she failed rapidly in health. The tissues of the woman were perfectly blanched, and she had a very copious and offensive discharge during the next ten days, when erysipelatous inflammation set in. She was ordered tinct. ferri chlor., gtt. xx three times a day; quiniæ sulphatis, gr. ii every three hours, with a local application of chlorate of potassa in flaxseed mucilage. She recovered perfectly, under the above treatment, in two weeks.

SUPERNUMERARY FINGERS AND TOES.

BY CHARLES W. BROWN, M.D.

DANIEL H. had five fingers and six toes. M., brother of Daniel, feet and hands normal; his only daughter had five fingers and six toes; and her two children's hands and feet were in the same way.

David, another brother, had additional fingers and toes, and his only daughter had only additional fingers.

H., son of Daniel, had six toes on each foot; his hands were normal. His three children had five fingers and six toes.

R., another son of Daniel, both feet and hands the same. He has two boys and two girls. One boy had six toes on one foot. One girl had additional fingers and toes.

I was called to remove the extra members from the last-named case, an infant, then six weeks old. On examination, I found that both feet contained six toes each, and they were normal in shape, with perfect joints, and in the additional toes the usual amount of motion. They were situated the same as the normal small toe, instead of being connected with the great toe, as Dr. Gross says they usually are. So I decided not to remove them.

The fingers were situated at the side of the metacarpophalangeal articulation of the little fingers, at right angles with the normal fingers, and had each a distinct joint, which I disarticulated, forming a flap of skin which covered the wounds completely. They healed readily, leaving no deformity.

All the other cases were nearly the same as the last-mentioned case, except the boy with one additional toe that was situated at the base of the great toe.

MANSFIELD, PENNA., January 16, 1874.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. R. J. LEVIS.

Reported by JOHN B. ROBERTS.

INTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR—THE USE OF WEIGHTED SPLINTS IN THE TREATMENT OF FRACTURES.

AN old woman, while walking across the floor, tripped, and, falling, sustained a fracture of the neck of the femur.

It is necessary in injuries in this situation to be able to make, if possible, the differential diagnosis between intra- and extra-capsular fractures, for the prognosis in the two cases is very different. If the patient is over sixty years of age and the injury caused by such a slight accident as tripping upon the carpet, it is probable that the fracture is intra-capsular, because the bone within the capsular ligament is cancellated, and, becoming with advancing years more earthy in composition, is brittle and readily broken by muscular contraction or slight indirect violence.

Extra-capsular fractures, on the other hand, are usually the result of the application of a great degree of violence, as in a case in the hospital, where a man, in attempting to pull a door-bell violently, was precipitated down a flight of steps to the pavement by the wire of the bell breaking, and sustained a fracture of the neck of the femur external to the capsule.

The shortening in intra-capsular fractures rarely exceeds three-quarters of an inch, for the capsular ligament retains the ends of the fragments in proximity; the surgeon, however, by pressing the bone upward can cause a still greater decrease in the length of the limb. A striking symptom is the peculiar attitude assumed by the injured limb, which is everted so that the external surface of the foot lies almost flat upon the bed, with the heel resting in the hollow above the os calcis of the other side.

It is difficult to obtain crepitation in this fracture, because the head of the bone lying loose in the socket is not sufficiently fixed to permit friction upon it, but moves readily with the motion of the shaft. A sensation similar to crepitus, however, is sometimes perceived, and often considered to be such, when really it is the rubbing of the end of the shaft against the ligaments and edge of the acetabulum. A good deal of injury is sometimes occasioned by repeated attempts to obtain crepitation, which only succeed in rupturing any spicules of bone which, perhaps, may be holding to some extent, by partial impaction, the extremities of the fragments in apposition.

A diagnostic point of great value is obtained by placing the hand upon the great trochanter, and observing the arc through which it moves when the limb is rotated on its long axis by an assistant.

In the normal condition, the neck of the bone being intact, the trochanter moves through an arc with a radius corresponding in length to the distance from the tuberosity to the articular surface of the head of the femur, and the arc of rotation is limited by the acetabulum and the ligaments of the joint; but if the neck be fractured, the motion will be in an arc of a very short radius, though it will be through a greater portion of a circle. In fat individuals it may be difficult to differentially diagnose fractures of the neck of the femur, owing to the impossibility of examining the parts thoroughly. If such be the case, place the patient upon his abdomen, and, having etherized him, see how far the injured limb can be lifted in a backward direction up from the bed, for it will soon be arrested against

the brim of the acetabulum if the neck is intact; but if fractured, the limb can be bent backwards to an abnormal extent.

A feature about these fractures which has a tendency to mislead the surgeon is that the patient is sometimes able to walk a considerable distance after the receipt of the injury, which seems incompatible with the existence of fracture of such an important bone as the femur.

The prognosis in intra-capsular fractures is very unfavorable, for union seldom, if ever, occurs, because of the impossibility of obtaining correct apposition of the fragments, the great effusion of synovial fluid bathing the parts and preventing the formation of callus, and the want of a sufficient supply of blood to the head of the bone, which has its circulation almost entirely cut off by the solution of continuity with the shaft. If, then, it were certain that this was a fracture entirely within the capsule, it might almost be left without treatment; but, as it may be partly intra- and partly extra-capsular, it is always proper in these cases to apply extension as in other fractures of the thigh, to afford an opportunity for union and to relieve pain.

Extension is accomplished by fastening a small board, to which a cord and weight have been attached, under the foot by two long strips of adhesive plaster extending up the sides of the limb near to the hip, so that the ligaments of the knee-joint may not be injured by the traction. The entire limb is then covered with a bandage, and the cord, with a weight of about ten pounds at the end, placed over a pulley adjusted to the end of the bed.

Instead of the ordinary sand-bags usually placed along the limb to restrain its movements, Dr. Levis employs what he denominates *weighted splints*, which are long boxes made to hold three or four bricks placed end to end. These fulfil the requirements more effectually than the bags, for the sand in the latter is apt to work under the limb instead of remaining as a firm lateral support; and moreover they, being cylindrical, touch the limb only by a curved surface, while the weighted splints with cotton or oakum padding present a wide surface, against which the member rests, and by which it is held as firmly as if lateral splints were bound to it by a bandage.

HYDROCELE COMPLICATED WITH INGUINAL HERNIA TREATED BY INJECTION OF CARBOLIC ACID—DIFFERENTIAL DIAGNOSIS OF SCROTAL TUMORS.

A man was admitted into the hospital with a large hydrocele of the vaginal tunic, coexistent with scrotal hernia that was easily reducible, and for which he had worn a truss a long time. There are varied tumors occurring in the scrotum, and it is important to be able to make a correct differential diagnosis, for the mode of treatment adapted to one condition may be altogether inapplicable to another.

Hydrocele is distinguished by absence of pain and discoloration, by an elastic feel, and by the swelling first appearing at the bottom of the scrotum and gradually extending upwards. There is usually, moreover, translucency perceived upon holding the tumor between the eye and the light, especially if a tube, as an ordinary stethoscope, be placed upon the scrotum, and the observer looks through it towards the light. This translucency may be absent if the contained fluid is dark and the skin and fasciæ have become thickened by protracted existence of the condition, or if the tunica vaginalis be lined with plastic matter, the result of chronic inflammation.

In scrotal hernia, which is sometimes confounded with hydrocele, the tumor descends from the upper part of the scrotum, may be traced to the external abdominal ring without difficulty, and usually can be reduced by returning the bowel to the cavity of the abdomen by manipulation. The most certain diagnostic features are

the impulse upon coughing, always perceived in hernial protrusions, but absent in hydrocele, and the position of the testicle, which is found in the former case at the bottom, but in the latter almost invariably at the middle and back of the tumor. Occasionally these two affections coexist, as in this patient; but the two sacs, situated one above the other, present upon careful examination their characteristic signs.

The softness of the swelling and the sensation imparted to the fingers, as of a mass of worms in the grasp, serve to diagnosticate varicocele; which tumor, moreover, disappears entirely upon raising the scrotum so that the blood may flow out of the veins.

In cases of sarcocele and carcinomatous disease of the testicle the swelling is very heavy, irregular in its outline, instead of having the smooth, ovoidal form of hydrocele, and possesses no translucency whatever. Hæmatocoele is also distinguished by weight, but is different from sarcocele and carcinoma in having nearly always a history of traumatism. When these points fail to reveal the exact nature of the affection, the diagnosis can be readily established by introducing an exploring-needle on the end of a hypodermic syringe into the tumor.

In this case there was no translucency, but upon puncturing the swelling a dark fluid escaped, which proved it to be a hydrocele, and at the same time showed the reason for its opacity.

The most popular method for the radical cure of hydrocele is the injection of stimulating fluids into the vaginal tunic, after the withdrawal of the serous effusion by the trocar. Of the various injecting fluids proposed, tincture of iodine is most generally employed at the present day; but it often fails to produce the inflammation requisite for the obliteration of the sac, and occasionally induces too much inflammatory action. Dr. Levis prefers carbolic acid for the injecting material, and in this instance used one drachm of a mixture of equal parts of carbolic acid and glycerin.

The injection of carbolic acid seems, from other cases to which it has been applied, to fulfil the conditions most admirably, producing sufficient inflammatory action to secure adhesion of the walls of the sac, and giving little or no pain to the patient, either at the time of its introduction or subsequently. This freedom from pain is probably due to the local anæsthetic effect of the carbolic acid, for it is well known that if this article be placed upon the skin the surface can be scarified with a knife without pain.

There is no danger of the inflammation being transmitted to the hernial protrusion, for experience has shown that this does not occur after injections for the cure of hydrocele complicated by the existence of scrotal hernia. It would, however, be a dangerous procedure in congenital hydrocele, since there the vaginal tunic communicates with the peritoneum, and inflammation of the latter membrane might be induced by continuity of structure.

When, as in this case, the tumor is very large, the fluid should be withdrawn simply once before attempting the radical cure, so that the sac may be contracted and the tumor reduced in size; and then, after the fluid has reaccumulated to some extent, the sac can be again evacuated and the stimulating material injected, so that the inflammation may be restricted to a diminished surface.

ABSCCESS OF THE LIVER OPENING INTO THE ASCENDING CAVA.—This extraordinary lesion is reported by Dr. Leon Colin in *L'Union Médicale*, Aug. 5, 1873. Secondary purulent deposits had occurred in the lungs, which, causing a copious expectoration of pus, had during life led to the erroneous diagnosis that the abscess had burst into a bronchus.—*Boston Medical and Surgical Journal*.

TRANSLATIONS.

INFLUENCE OF THE ACTION OF THE SKIN UPON THE SECRETION OF URINE.

DR. MÜLLER (*Archiv für Exper. Pathol.*) has by the aid of appropriate apparatus conducted a series of experiments with a view to determine what influence, if any, is exercised on the quantity of the urinary secretion by variously modifying the action of the skin.

The influence of cold was ascertained by cold packing and by cold showers. The packing was carried out by means of cloths wrung out of ice-water, which were wrapped around the animal to be experimented on, and were renewed every five minutes. The duration of the experiments varied from ten to twenty-five minutes.

Ex. 1.—Rate of secretion 22 drops per minute ;

increased to 27 " "

Ex. 2.—Rate of secretion 30 " "

increased to 41 " "

Ex. 3.—Rate of secretion 24 " "

increased to 31 " "

The use of ice-cold showers gave the following results:

Ex. 4.—Rate of secretion 30 drops per minute ;

increased to 38 " "

Ex. 5.—Rate of secretion 27 " "

increased to 34 " "

Ex. 6.—Rate of secretion 21 " "

increased to 30 " "

The effect of hot applications in the form of cloths wrung out of hot water was as follows:

Ex. 7.—Rate of secretion 26 drops per minute ;

decreased to 7 " "

Ex. 8.—Rate of secretion 34 " "

decreased to 17 " "

Ex. 9.—Rate of secretion 31 " "

decreased to 18 " "

Continuous showers of hot water gave the following results:

Ex. 10.—Rate of secretion 23 drops per minute ;

decreased to 4 " "

Ex. 11.—Rate of secretion 26 " "

decreased to 5 " "

Ex. 12.—Rate of secretion 20 " "

decreased to 4 " "

The influence upon the secretion of urine of frictions of the general surface and of epispastics (blisters and mustard-plasters) was also examined into, but with negative results.

Varnishing the cutaneous surface gave results which were quite unexpected, and in fact seemed almost paradoxical.

In three experiments out of seven a diminution of from two to three drops per minute was observed. No increase in the secretion of urine was observed in any case.

Dr. Müller believes that an explanation for this diminution of the quantity of urine following varnishing of the skin may be found in the statement of Laschke-wisch, that such varnishing is followed by a general dilatation of the cutaneous blood-vessels, which reduces the pressure on the renal circulation.

The importance of these experiments from a pathological point of view may be appreciated by comparing the figures in the series relating to the effect of hot-water wrappings with the well-known good effect of diaphoretics in Bright's disease.

In the latter, a single packing, as is known, often induces a loss of weight amounting to ten pounds.

That this loss represents just so much work taken off the kidneys is evident from a consideration of the figures just mentioned.

It may be easily understood that an organ which is affected in most cases of inflammation can much more easily be cured if the great local hyperæmia can be remedied, or if even a temporary anæmia can be brought about.

It is self-evident, moreover, that an organ whose entire physiological function depends upon its varying blood-circulation could be more easily and quickly relieved from disease if this circulation could for a time be diminished and a temporary rest allowed the organ.

A. VAN HARLINGEN, M.D.

THE ACTION OF SPARTEIN UPON THE ANIMAL ORGANISM.

UNDER the above title, Dr. Fick gives (*Archiv für Exper. Pathol.*) an account of a number of experiments made upon frogs and other animals with this substance.

His conclusions are as follows: 1. So far as can be ascertained, spartein affects the intellectual functions both of frogs and the mammalia, and can therefore to a certain extent be regarded as a narcotic.

But this effect upon the brain is not a very marked one in degree, since, even in cases where the most decidedly poisonous results have been produced, entire suspension of consciousness has not been observed.

2. Spartein exhibits powerful toxic effects upon the spinal cord, the reflex action of which in particular is lessened to a great degree.

3. Spartein paralyzes the motor nerves, which after a larger dose of the poison lose their electrical excitability entirely.

4. A small dose of spartein causes the suspension of the electrical excitability of the vagus, so that its excitation produces no interfering influence upon the motions of the heart. In larger doses the governing centres themselves are paralyzed, so that neither by the use of muscarin nor by other means can a diastolic cessation of the heart be produced.

5. In the poisoning of mammalia by spartein, death is dependent upon paralysis of the respiratory centres.

By employing artificial respiration, life may be prolonged in the poisoned animals for some time.

A. VAN HARLINGEN, M.D.

VARICOSE AXIS CYLINDERS IN THE CENTRAL NERVOUS SYSTEM.

DR. OTTO OBERMEIR, of Berlin, states (*Virchow's Archiv*, September 10, 1873) that varicose enlargements of the axis cylinders occur more frequently in the brain and spinal marrow than is commonly supposed. A varicose condition of the finest fibres of the cerebellum and in the gray substance of the spinal cord is normal. Enlargements of this character of noticeable dimensions are found in the brain and spinal cord in the course of various acute and chronic inflammatory diseases. Marked thickening and swelling of the axis cylinders were found in two cases of glioma of the cerebral hemispheres, in a case of cystic sarcoma of the cerebellum, in a hemorrhagic spot in the right peduncle of the cerebrum, etc.

Deposits of hæmatin were found in the walls of the adjacent vessels, and free hæmatin in their neighborhood. The existence of the various axis cylinders in these cases in connection with hemorrhagic exudation appears to be due to an inflammatory process from reaction.

WM. ASHBRIDGE, M.D.

PHILADELPHIA
MEDICAL TIMES.A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

PUBLISHED EVERY SATURDAY BY

J. B. LIPPINCOTT & CO.,

715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

SATURDAY, JANUARY 31, 1874.

EDITORIAL.

THE PHILADELPHIA HOSPITAL.

MOST of our readers will remember that last summer we devoted the editorial columns of several issues of the journal to exposing that leprous excrescence known as the Philadelphia Hospital, and protested against the system which labels, clothes, and feeds a man disabled by sickness or injury, as a pauper, and turns him *volens* into a pauper upon his recovery. We intimated that more was to be said upon the same subject if the breach made by our attack was not wide enough for the stream of reform to find its way through, gradually open free passage, and acquire a force which should cleanse the Augean stable. We have since forborne to write upon the subject, for two reasons: First, because so many topics of more general interest have presented themselves; secondly, because we could see evidences that the good work was going on, and might be hindered rather than aided by words of ours.

After the appearance of our editorial, at first astonishment and surprise were expressed in private circles,—words of indignation, making to tingle the ears of those in authority. Then timidly, with bated breath, the newspapers of our city began to say a word or two. Philadelphia's pride, its daily press, leaving the story of the criminal courts or of the last murder, found room for some cautious words in regard to the almshouse, stating that the matter needed looking into, and then, forsooth, swelling with the pride of conscious virtue because it had shown so much of energy and of boldness!

At this juncture there occurred in the office of one of our leading dailies an incident that portrays so vividly the obstacles which reforms like the present meet with, that we insert it:

Young and ardent editor Jones, holding the *Philadelphia Medical Times* in his hands.—“Mr. Smith, look at this! Let us send a reporter and work it up; it will make a first-class thing for us, and do good.”

Old and wary principal Smith.—“Ah! It can't be true. I have some very good friends on the Board; they would not suffer such a state of affairs! It can't be true.”

So nothing is said. The good friends remain good friends, and the city advertising goes on as usual.

Notwithstanding the obstacles, more and more did public opinion crystallize around our protests, until after a time a grand jury condemned very pointedly the Philadelphia Hospital, and we could see some light breaking through the skies. Finally, not long since, the Board of Guardians, through their hospital committee, agreed to or instituted measures which seem to us the entering-wedge for the desired separation of the almshouse and the city hospital. It was agreed that hereafter all patients shall enter the hospital, and not, as heretofore, the almshouse, to be assigned to the hospital department; that a better grade of flour shall be bought for the hospital; that the patients shall no longer be clothed in the dress of the pauper, and that they shall be discharged, at the will of the hospital committee, directly from the hospital, and not simply from the hospital department to the out-wards of the almshouse.

In regard to the condition of the equipments of this hospital, half a century old, it is very significant that it was found necessary to appropriate twenty-five hundred dollars for surgical instruments.

In the name of the poor wretches whom hard fate has driven to the Philadelphia Hospital, we thank the Board which has granted this great boon; in the name of an outraged humanity, we beg of them to go on until the stricken wayfarer shall find that rest and care which it is the mission of Christianity to furnish; in the name of a disgraced community, we demand the most sweeping reforms, until at last this city of a million of people shall have a municipal hospital worthy of the name.

ARMY MEDICAL LIBRARY.

WE learn with great regret that it is proposed to cut down the usual appropriation by Congress to the Army Medical Library from fifty to ten thousand dollars. It is to-day simply impossible to

write in America an exhaustive book upon any large medical subject, because the material out of which such works are built is not at hand. There is no complete medical library in the country, and we see no prospect of there being one except through the attempt at Washington. The crippling of this movement is simply a national misfortune, destroying or putting back many years the growth of the highest medical culture in this country; reaching directly, perhaps, only a few leading thinkers in the profession, but affecting through them the whole body of physicians, and, through the general practitioners, the highest and meanest citizens. We trust that our medical societies will bestir themselves and influence the representatives of their various districts. Would it be possible to awaken that venerable old lion, the Philadelphia College of Physicians? To be sure, he is seemingly harmless,—his teeth wasted away, and his claws worn off,—but perhaps he has enough life left for a lethargic growl, and his former reputation is not yet quite forgotten.

CORRESPONDENCE.

THE FUNCTION OF THE LYMPHATICS.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

YOUR notice of Assistant-Professor Klein's "Anatomy of the Lymphatic System" is well timed,* and will do something towards directing attention to this anatomical mystery, hitherto, of the human body. That the function of this elaborate and complicated system of living bodies should have wholly escaped the scrutiny of physiologists need not be an occasion for surprise, since the functions of so many of the organs of the body are so imperfectly understood. In the very latest exposé of physiology (Flint) its function is disposed of in a dozen lines. And the suggestion of Professor Klein that it "may be regarded as ministering to the production and development of blood" leaves the matter as much in the dark as ever. Still, it has a function, and an all-important one, too. Three years since, I think, it fell to my lot to designate its actual function in organic life. In a paper in the *Buffalo Medical and Surgical Journal*, July, 1871, I first gave my conclusions to the profession. Incidentally, since then, I have stated it in several other published papers,—*Medical Press and Circular*, London, March 26, 1873,—though it is more elaborately worked out in the *Chicago Medical Journal*, December, 1873, in connection with an abstract of the debate, a year since, in London, on the "Anatomical Relations of Tubercle to Phthisis."

Briefly, I may say, then, that the lymph performs the

same function in animal life as the seed in the vegetable world. Technically stated, the lymph stores up the force to carry its own and new material up to the special molecular arrangement or forms of organic structure from which it has been derived. It is, in fact, the precise material in which is stored up the so-called "vital force," which plays so important a part in organic life, according to accepted physiological beliefs, in the professional and naturalist minds of the past and present.

The elaborate work of Professor Klein on the "Anatomy of the Lymphatic System" can hardly fail to do something towards clearing up the obscurity in which the functions of the contents of the abdominal cavity are at present shrouded, and may lead to an entire reconstruction of the physiology of "digestion," so called, transferring its seat from the abdomen to the lungs. The changes effected in the few "proximate principles" of which all our food consists—viz., starch, fats, oils, gum, sugar, gelatin, albumen, and fibrin, animal and vegetable, etc., etc.—are not well understood as a whole, though fairly made out in part, as the dissolving of heat-coagulated albumen and fibrin by pepsin, and the conversion of starch into sugar in the liver, etc., etc. But, whatever they are, no part of new material introduced into the stomach probably finds its way to the lungs through the thoracic ducts, but all is taken up by the venous blood-vessels. The stream arriving at the right heart really consists of old and new material, to which the lymph—the seed of the tissues, so to speak—is added just before entering the right auricle. In the lungs this complex stream meets the gaseous atmosphere, where, it seems to me, the facts of observation and experiment demonstrate that the bulk of the molecular or chemical changes occurs to fit food to become living flesh, capable of performing a function, chief among which is provision, in turn, for its own reproduction from new material.

The material in which each and every living histological structure stores up the force, in the act of functional decay, for its own reproduction from new material, it is the special function, it seems to me, of the lymphatic system to take from among the other products of decay, and restore it again at a proper time and place to perform its function. That proper place is just where the thoracic ducts empty their contents into the bloodstream; and in the economy of nature no other place would be proper in the whole body but near the right auricle.

Possibly it would "pay" your publishers to reproduce Professor Klein's beautiful work, and place it within reach of the profession at large in this country; though it is a suggestive fact that it required "government" aid to bring it out in London.

More likely, as it is not a "practical" work,—that is, does not tell how to give certain drugs and medicines to cure certain so-called diseases,—those who want it will have to do as I have done—buy the English edition.

Z. COLLINS MCELROY.

* *Philadelphia Medical Times*, Jan. 10, 1874.

ZANESVILLE, OHIO, January 12, 1874.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, DECEMBER 11, 1873.

THE PRESIDENT, DR. WILLIAM PEPPER, in the chair.

DR. MORRIS LONGSTRETH presented the *brains and spinal cords* from the following cases of *cerebro-spinal meningitis*.

Case I.—Martha R., æt. 36, was admitted to the Pennsylvania Hospital April 1, 1873, under the care of Prof. J. M. Da Costa, having been ill for four days. She was delirious, but not noisy; intelligence confused, answering questions incorrectly.

Died on April 5, 1873.

Autopsy was made fourteen hours after death. No marked morbid lesions were found in any of the thoracic or the abdominal organs. The posterior portion of both hemispheres along the longitudinal fissure was covered with a layer of lymph. On the base of the brain the lymph was more abundant, and covered the crura, pons, and the trunks of the cranial nerves. The spinal cord was covered with a thick layer of lymph, measuring nearly an eighth of an inch in thickness, extending throughout its length. The lymph was in the sub-arachnoid space, and was adherent to that membrane; it was quite firm in consistence, and of a grayish color.

The spinal cord only was exhibited, and is preserved in Prof. Da Costa's collection at the Jefferson Medical College.

Case II.—Philip G., æt. 38, was admitted to the Pennsylvania Hospital March 15, 1873, under Dr. James H. Hutchinson.

The surface of the brain has a bright-red appearance, from the intense congestion of the vessels of the pia mater. The lymph exists mostly in the sulci between the convolutions, but in places covers the convolutions also. The congestion is greater on the convexity of the brain, and the lymph more abundant on the base.

The spinal cord is greatly congested, the membranes opaque, and lymph exists in patches throughout its length. There are three or four *calcareous particles* deposited in the lymph.

The notes of the case are published in the *Philadelphia Medical Times* for June 28, 1873, by Dr. Hutchinson, and both specimens are preserved in the Museum of the Pennsylvania Hospital.

Case III.—John L., æt. 33, was admitted to the Pennsylvania Hospital April 15, 1873, under the care of Dr. James H. Hutchinson.

The vessels of the cord are considerably injected; the arachnoid is nearly opaque. The deposit of lymph is most marked at the lower portion; a small portion of the upper dorsal region, however, is completely covered. A few very minute calcareous particles are present.

This case is published in the *Philadelphia Medical Times* for June 28, 1873, by Dr. J. H. Hutchinson, and the spinal cord is preserved in the Museum of the Pennsylvania Hospital.

Case IV.—George Barley, æt. 22, was admitted to the Pennsylvania Hospital May 9, 1873. Notes of the case are in the Register, No. 229, for 1873-4.

The brain is much congested; on the convexity there is some lymph, on the base the surface is quite shaggy with shreds of inflammatory adhesions, and a layer of lymph exists in the sub-arachnoid space. The cord is not markedly congested; the membranes are thickened and opaque. An uneven layer of lymph covers the cords, and in it are imbedded some particles of calcareous matter.

Case V.—Edward A., æt. 35, admitted to the Pennsylvania Hospital April 16, 1873, under Dr. Hutchinson's care. The spinal arachnoid is hazy and somewhat opaque. There are streaks and patches of lymph beneath it, and one or two calcareous points. The vessels of the pia mater are considerably injected, and the consistence of the cord itself is rather soft.

The notes of this case are published in the *Philadelphia Medical Times* for June 28, 1873, by Dr. Hutchinson, and the specimen is preserved in the Hospital Museum.

Dr. J. H. HUTCHINSON said he had had several of these cases reported by Dr. LONGSTRETH under his own observation, but could add nothing to what had been said, except as to the appearance of the spiculæ of inorganic matters beneath the membranes. These were first thought to be spiculæ of bone which had obtained accidental admission in the operation for opening the spinal canal; but examination proved this view to be erroneous, as they were not bone-tissue, but simply inorganic matter.

As to treatment, none seemed to afford relief, except in one instance, where cups to the back of the neck appeared to give great relief. Bromide of potassium also afforded some relief in quieting the patient.

Out of the six cases treated in the Pennsylvania Hospital, five died; and at the post-mortem examinations the lesions discovered were by no means commensurate with the degree of the symptoms,—cases in which the symptoms were most severe and of longest duration showing a simple hyperæmia of the spinal cord, while another, in which there was the history of but two or three days' illness, exhibited extensive changes.

Dr. S. W. MITCHELL said that he had seen a large number of these cases, but his experience had been confined to private rather than hospital practice. As to treatment, his results had been similar to those of Dr. Hutchinson, nine cases out of eleven having perished. Within the last three months he had also met nine cases in which recovery had been attended by absolute deafness, in which also all treatment for the latter affection proved unavailing. He alluded to the recent paper by Dr. Knapp, of New York, in which a large number of cases of deafness following cerebro-spinal meningitis had been collected, out of which two only had been relieved by treatment.

Dr. Mitchell had also met one case of blindness after this affection, in which there was well-marked atrophy of the optic nerve, which had also failed to respond to treatment.

Dr. CHARLES H. BURNETT asked whether in these cases of deafness there was any staggering gait.

Dr. MITCHELL replied that he had met the staggering gait in one case only, but this was very marked, and associated with sick stomach. The latter symptom might have been either a cause or a consequence, but he thought the latter more likely.

Dr. BURNETT had asked the question because he was curious to know whether the deafness and staggering or sailor-like gait were associated. He had recently been informed by a gentleman practising in Pottsville that he had observed deafness following cerebro-spinal meningitis in some twenty cases, in all of which he had observed the staggering gait. Dr. Burnett had himself met one case of the deafness in which the staggering gait was also present.

Dr. LONGSTRETH asked whether the cause of the deafness was centric, or due to some cause acting upon the nerve-trunks, as, for instance, the pressure of the inflammatory lymph.

Dr. R. M. BERTOLET said the cause assigned by Dr. Knapp in the paper referred to was an effusion of pus and lymph in the labyrinth, similar to the effusion in the retina, which causes total blindness. Dr. Berto-

let had seen about twelve cases of deafness following cerebro-spinal meningitis, but the staggering gait was not present markedly in any, and often wanting.

Dr. BURNETT said that cases had been reported by Knapp in which pus had been found in the labyrinth. He thought the best explanation of the deafness had been given by the anatomist Hasse, in a recently published instalment (No. XIX.) of his "Studies of Anatomy," in which he states that, having studied the anatomical relations of the perilymph and endolymph, he had concluded that they are perfect and complete portions of the lymphatic system, and that they are in direct communication with the fluid of the sub-arachnoid space as well as of the spinal cord. Any impression, therefore, made upon these fluids must be made upon the labyrinth and its lymph. He goes so far as to state that pathological processes may begin in the internal ear and pass into the spinal cord, and *vice versa*.

Dr. LONGSTRETH said that there had been observed failure of vision and paralysis of the facial and some of the orbital muscles, showing an involvement of the second, third, fourth, and seventh nerves, following cerebro-spinal fever. In such cases, Dr. Burnett's explanation of the communication between the inner ear and the sub-arachnoid space would certainly not account for the failure of function in the other nerves mentioned.

The PRESIDENT said he had long been satisfied that the examination of the *substance* of the nerve-centres in cases of cerebro-spinal meningitis had not been sufficiently careful. Although it was undoubted that many of the symptoms were due to pressure upon nerve-trunks, or upon the spinal cord from inflammatory exudation, he believed that many also, and especially the marked and long-remaining paralytic ones, were due, in part, to accompanying inflammation of the nervous substance.

Dr. JOHN ASHHURST, Jr., referred to the destructive inflammations of the cornea which occur in cases of cerebro-spinal fever, as rendering it probable that inflammatory changes sometimes spread beyond the meninges and implicate the nerve-centres and nerves. A case of this kind (which, however, was not at the time recognized as one of cerebro-spinal fever) came under Dr. Ashhurst's observation in 1862, and was reported to the Society early in the next year.* Paralysis existed in this case for some time before death, but at the autopsy much slighter traces of meningitis were observed than in the specimens presented this evening by Dr. Longstreth.

Dr. CHARLES H. BURNETT presented a specimen of *mycelial tube-cast of the external auditory meatus*, removed from the ear of a female 40 years of age. "She has been affected for some years with *ozæna* and hardness of hearing, but in addition to this she has had frequent attacks of sharp and sudden pain in the ear, for which she could assign no reason. These attacks endured only a day or two, and then suddenly ceased, being followed by a slight, watery, mucous discharge from the ear. It was just after the pain of one of these attacks had ceased that I examined the left ear and removed the accompanying tube-cast from the meatus auditorius. Before the removal of the tube-cast the meatus appeared lined with, and the membrana tympani covered by, a piece of wet newspaper. This homely simile will best convey to you the appearance of these parts before the removal of the fungous tube-cast.

"As I had examined the ear for another purpose ten days previously, I know that the tube-cast had formed within that time.

"By means of a pair of curved forceps, light being

reflected into the auditory meatus by means of the forehead-mirror, I seized the outer edge of the tube-cast and removed it without any pain to the patient or difficulty to myself, for this tube-cast was not adherent.

"I thus exposed the walls of the meatus and the membrana tympani to view. These parts were not extraordinarily red nor sensitive to touch or pressure. A drop of fluid taken from the auditory meatus and *immediately* examined under the microscope revealed the presence of free spores of the *Aspergillus*, and also numerous vibriones. This I believe to be the first instance on record in which these latter objects have been found in the ear of man. They might, however, *a priori*, be supposed to be present in the ear in many cases. There were no pus-cells present in the fluid removed from the auditory meatus in this case.

"The tube-cast of the meatus is composed of mycelium richly studded with colonies of hyphens supporting large and beautiful sporangia of a brownish-yellow color. The hyphens are not septate, and there is no membrane enclosing the sporangia. Myriads of free dark-brown spores are found, with a very little epithelium, imbedded in the mycelium as well as lying on its surface.

"The thalli are septate, and here and there I detected a little spot of bright-green coloring-matter in them. The spores are echinate; but, although that is a feature of the *A. glaucus*, I think the color of the sporangia and spores might justify the conclusion that this is a specimen of *A. flavescens*.

"The treatment consisted in three instillations of a solution of nitrate of silver (100 gr. to f $\frac{3}{4}$ i) within the first ten days, and the repeated daily use of instillations of alcohol (90 per cent.) for one month. This continued use of alcohol or any other parasiticide is indicated in any case of a growth of *Aspergillus* in the ear, if the disease has been contracted in a damp dwelling where the patient is still living, as in this case.

"There has been no return of pain or discharge, and upon inspecting the meatus I find no appearance indicative of the presence of a fungus in the ear.

"The rapidity of the formation of the fungous tube-cast, the presence of vibriones in the meatus, and the serous nature of the discharge from the ear, constitute very interesting features in this case.

"Wreden, of St. Petersburg, as well as other distinguished observers of this form of aural disease, unite in their testimony as to the great rarity of purulent otorrhœa as a feature or a cause of this disease, whereas, from increasing data, it appears that the presence of fungi in the external auditory meatus is productive of a characteristic but scanty *serous discharge*."

Dr. BERTOLET said that the occurrence of *Aspergillus* in the external auditory canal was not very rare. He had met cases where there has been discharge from the middle ear, and the mycelium has developed subsequently, the moist surface apparently tending to encourage its growth. He did not think that much importance could be attached to the presence of vibriones, though he is not aware of having seen any under these circumstances. He had often seen them in pus removed from the ear.

Dr. JAMES TYSON exhibited for Dr. KNIPE, of Norristown, Pennsylvania, *two concretions removed from the appendix vermiformis* of a gentleman aged 25, which had caused fatal peritonitis. The history was as follows:

For nearly a year past the patient had suffered occasional severe attacks of abdominal pain, so frequent and so severe that they had attracted the attention of the family as thus occurring. At other times, however, he enjoyed fair health, and was remarkable for his bright and cheerful disposition.

On the 21st of November he went "turtle-hunting," and in the course of the day made a leap, during which

* See *American Journal of the Medical Sciences*, October, 1863, p. 401.

he said he felt something give way, as if within his abdomen. He did not complain until Sunday morning, when he mentioned that he had pain in his stomach, which kept on increasing until evening, when he consulted his physician, Dr. Knipe. The doctor gave him two grains of morph. sulph. in four powders, of which he took three during the night without relief.

On the next day, Monday, he began to vomit. His bowels were moved that night by two doses of calomel, gr. x each, and again on Tuesday morning. The symptoms of peritonitis, however, became more marked, and he died on the morning of Friday, the 28th of November.

The post-mortem examination was made the following day. The omentum was firmly glued to the pelvic viscera, and on raising it a large amount of pus was found in the pelvic cavity. The viscera here were all firmly adherent, and on seeking the appendix it was found sphacelated, and dilated to the diameter of one-third of an inch. In it were felt, rolling under the finger, two concretions,—a larger, cylindrical, and a smaller, nearly round. On opening the gut, the former was found to be a perfect cylinder, about three-fourths of an inch in length and one-third of an inch in thickness; the latter was irregularly round, and less than one-third of an inch in each direction. They were solid, but compressible, and could have been crushed beneath the finger. On section they seemed to be made up throughout of solid fecal matter, without anything in the centres comparable to a nucleus. The appendix, from its origin in the cæcum, was permeable to an ordinary full-sized probe, and, as stated, became dilated as the vicinity of the concretions was reached.

Dr. TYSON thought the previous history of the case explained most satisfactorily the conditions found. These concretions had evidently been forming some time, causing the occasional attacks of severe pain from which the patient had suffered throughout the year, and which were the result of attacks of limited local peritonitis. These were sufficient to produce adhesions, and it was one of these which was ruptured in the leap referred to, and thus became the starting-point of the final peritonitis, of which he died.

Dr. WILLIAM PEPPER presented a specimen of *perforative disease of the appendix vermiformis and ileum*, from a case in the practice of Dr. J. R. F. BELL. The patient was a vigorous lad of 17 years of age. There had been no symptoms of intestinal disease before this attack, which had followed violent over-exertion. The early symptoms were severe pain in the right iliac region, and frequent and violent vomiting. The bowels were moved on the third day by enemata, though the fecal matter probably came only from the colon. The symptoms were much relieved at first by opiates. No free evacuation of the bowels, however, occurred. Extreme soreness and distention of the belly continued, and on the fifth day vomiting recurred, and soon became fecal. No tumor could be felt at any time. The urine was at first scanty, and passed frequently and with effort; but later it became abundant, and was passed easily. The vomiting was a second time relieved by opiate suppositories and exclusive feeding by the rectum, and the stomach soon became retentive, and continued so until the end. No evacuation of the bowels was obtained either by enemata or repeated laxatives, and the obstruction seemed to have become absolute. The distention of the belly increased until the coils of enormously-distended bowel could be readily traced through the thinned abdominal walls.

Death occurred, in a state of extreme prostration and emaciation, on the tenth day of the disease.

Autopsy.—Abdomen alone examined. The small intestine was enormously distended down to 18" above the ileo-cæcal vulvi. At this point there was a firm,

sharp edge of mesentery, belonging to a fold of ileum which was twisted on itself, which compressed the bowel against the right side of the vertebral column, so as entirely to occlude it. The remaining part of the ileum was empty, and pressed into a small, lead-colored mass against the right sacro-iliac synchondrosis. On following it down, a perforation of the ileum was found 1½" above the valve. The ulceration of the serous coat was fully 1" in diameter, while the perforation of the mucous membrane was not more than ¾" in diameter, so that evidently the progress of ulceration had been from without inwards. The appendix vermiformis lay directly across this ulcer. For the first 1½" of its length it was adherent to the cæcum, its walls were thickened, and its calibre patulous. At that point, however, ulceration had occurred to such an extent as entirely to sever the appendix. The detached part was about 1½" long; its walls were thin and dilated, and presented two ulcerated perforations. It contained two concretions, one ¾", the other ½" in diameter, formed of inspissated mucus. This part of the appendix was connected with the proximal part only by some shreddy connective tissue. There was a small quantity of sanious pus mixed with fluid fecal matter which had escaped from the ileum, but no attempt had been made at the limitation of this and the formation of an abscess. Some of these fluids had flowed into the pelvis. The general surface of the peritoncum was dark, intensely injected, and dry, but there had been no exudation.

Remarks.—Among the points of interest about this case may be mentioned the latent existence of two concretions in the appendix, and the active symptoms excited by excessive muscular straining. The symptoms indicated two phases of the case,—the first due entirely to ulcerative disease of the appendix and ileum, and the second, which began on the fifth day, due to the perforation of the ileum and the occurrence of a twist of the bowel, entirely obstructing its calibre.

Dr. L. A. DUHRING desired to know the exact composition of these concretions. He had seen but a single case, which occurred many years ago in his own family, before he had any knowledge of medicine, but he recollected seeing the concretions.

Dr. LEONARDO S. CLARK alluded to a concretion which had been examined by Dr. James Tyson two or three years ago, in which a collection of hair had been the nucleus, and another in which a cardamom-seed had served the same purpose.

The PRESIDENT said that a great variety of objects had been found as nuclei, such as gall-stones, small intestinal worms, foreign bodies which had been swallowed, as small seeds, beads, and the like. In many instances, however, the body found in the appendix was named from some fancied resemblance, as to a cherry- or date-stone, while in reality they often are mere concretions of inspissated mucus or fæces. Even when there is a nucleus of some foreign body, concentric layers of inspissated matter usually have formed around it.

Dr. CLARK said that in both of his cases there was intense pain in the genital organs; one being that of a young girl of fifteen or sixteen years, the other that of a man of twenty-one. The pain in both instances was so great that the friends of the patients spoke of it. He had recently been reading in a Western journal the report of cases in which this symptom was also mentioned by the reporter.

Dr. JOHN H. PACKARD said that in January, 1861, he presented to the Society a concretion which had lodged in the appendix vermiformis of a boy eleven years old. He did not now recollect whether there was a nucleus or not, but an abscess of considerable size had formed about the appendix, which was perforated.

Dr. TYSON also exhibited the *heart and kidneys* of a

man aged 51, who was admitted to the medical wards of the Philadelphia Hospital about the 1st of November, with a double aortic murmur, dyspnoea, dropsy, bloody and highly albuminous urine, which contained also casts filled with broken-down epithelial cells, granular casts, and casts containing blood-corpuscles. He had been for many years an attendant about the hospital, and was very intemperate. He died within a week after admission, previous to which, however, the albumen and blood had greatly diminished. On post-mortem examination there was found extensive disease of the aortic valves, which were stiff with calcareous deposit, while the aorta was atheromatous as far as examined, which was several inches from its origin.

The *liver* was cirrhotic, hob-nailed.

The *kidneys* were simply turgid with blood, and weighed, therefore, somewhat more than in health, but were not otherwise enlarged; and their minute structure exhibited slight increase in the interstitial connective tissue.

The case was interesting chiefly in the relation of kidney- to heart-disease. Here the aortic disease was so advanced and the condition of the kidneys so slightly changed that there could be no doubt that the cardiac disease was primary, while the man had, at the time of his admission, all the symptoms of an acute nephritis. The latter was probably due to the direct influence of cold upon an organ already congested, but not otherwise the subject of extensive disease.

Dr. TYSON also exhibited the *spinal cord* from a case of *progressive locomotor ataxy*. There was extensive softening throughout the entire thickness in the lumbar enlargement, while higher up there was also a wedge-shaped segment of sclerosis involving the antero-lateral column for one and a half lines on each side of the anterior median fissure.

Dr. TYSON also exhibited a specimen of *abscess of the liver*, without history.

Dr. J. SOLIS COHEN presented a specimen of *subglottic multiple mucous polypi of the larynx*, removed with lateral forceps. Adam B., æt. 30, was sent to the doctor December 6, by Dr. Webb, of this city, on account of persistent hoarseness of over four years' duration. The general health was good, and the hoarseness the only symptom of disease. It had apparently resulted from catarrh due to exposure while the patient was on the police-force,—the voice having been much used previously in the business of huckstering. The voice had that peculiar dysphonia usually indicative of morbid growth in the larynx.

"On laryngoscopic examination, a large morbid mass was seen beneath the left vocal cord, reaching beyond the right cord, and projecting above the glottis with every expiration. I thought it was a papilloma, and so informed Dr. Webb, inviting him to attend with the patient the next day, when I would make an attempt at removal. On the following day I demonstrated the growth to Dr. Webb, and immediately afterwards introduced the forceps and removed a large portion of the growth. Examining this more closely half an hour after with Dr. Bertolet, it appeared that this growth was a distinct single polyp, partly mashed in the teeth of the forceps.

"On the following day I removed in the same manner another growth, similar in character, but also mutilated by the forceps. On examination, I was somewhat surprised to see a third growth still in the same situation. This I removed on the following day, and it was fortunately so seized as to be preserved intact.

"All these growths were pedunculated, and were attached in close approximation, apparently, to the anterior portion of the thyroid cartilage, just below the glottis and to the left of the middle line.

"The chief point of interest in the case is in the mul-

tipile nature of the growths, which, though frequent in mucous polypi of the nasal passages, is rare in those of the larynx; and another point, of less interest, is in their location.

"This is the first case of multiple pedunculated polypi that I have seen out of more than one hundred cases of laryngeal growths, and only the second of that kind that I have removed from below the glottis.

"This form of tumor is fibro-cellular, is comparatively rare in the larynx, existing in only about five per cent. of the cases of laryngeal growth; and its usual seat is upon the epiglottis or upon the vocal cords.

"If the growth is myxomatous it is still more rare; myxomata occurring in not more than five-tenths per cent. of the whole number of laryngeal growths."

The specimen was referred to the Committee on Morbid Growths, which reported: "The laryngeal tumor extirpated by Dr. Cohen is deemed by your committee to be a *myxoma*. The cells which are abundantly present in the hyaline ground-substance are mostly stellated, and frequently anastomosing; others, again, are without any processes, being nearly round. The microscopic section shows that the growth is distinctly lobulated, due to the coarse septa of ordinary connective tissue. In the latter only were any blood-vessels detected, these all presenting a very wide lumen."

GLEANINGS FROM OUR EXCHANGES.

THE CONSTITUTIONAL RELATIONS OF SECOND DENTITION (*New York Medical Journal*, January, 1874).—Dr. Joseph Mulreany, in an extremely interesting paper, records a number of cases occurring in his practice, and illustrating some practical points connected with the protrusion or cutting of the permanent teeth, especially the first four molars and the four wisdom or third molars. He believes that the physiological irritation of a new tooth cutting through the gum is the direct, though frequently unsuspected, cause of many diseases, both of childhood and maturity, and that the results of treatment demonstrate conclusively that such is the case. He says that every case of true morbus coxarius he has met with began between the fifth and seventh year, or it might be a few months earlier, and also whatever mischief occurred to the joints took place during the cutting of the first four molars of the permanent teeth, and that after they had come fairly through the process of separation commenced. His illustrations are numerous, the more important ones being as follows:

Case I.—Miss W., when a child of between five and six years, suffered from morbus coxarius. The first indications of the joint-disease were lameness and pain when the head of the femur was strongly pressed against the acetabulum. In process of time the usual symptoms of pain in the knee, flattening of the hip, and shortening of the limb, took place, but all in a mild form, and all subsided at the end of her sixth year, coincident with the complete protrusion of her first four molar teeth, leaving her slightly lame for life. She was a member of a family of a highly scrofulous diathesis.

Case II.—Margaret McC., aged 6½ years; had had pain in the left hip-joint and knee for over a year; slightly lame; hip flattened; right upper molar still to be protruded. The gum was well scarified, and she was ordered iodide of iron with senna as an aperient,—the gum to be scarified once a week until the tooth came fairly through. In a month she was greatly improved.

Case III.—C. D., æt. 20 months; had enlarged and suppurating cervical glands, but was in good condition. About the twenty-fourth month he had cut all

his deciduous teeth, and every bad symptom disappeared. In his fifth year he was suddenly seized with pains in his left hip. He was ordered an effervescing mixture containing iron and iodide of potassium, and a small blister was applied from time to time over the hip-joint. The gums were not scarified, owing to the violence of the patient. This condition continued for a year and a half; sometimes he could walk without the aid of a crutch, but invariably, when he had a teething-spell, he was forced to crawl about on all-fours. At this time a surgeon, who was called in consultation, diagnosed such an amount of disease as to warrant immediate resection of the hip-joint, though Dr. Mulreany was convinced that it was a case of morbus coxarius brought into action by dental irritation. An amputation of the head of the femur was attempted, but a deep and ample incision down to the capsular ligament assured the operator that the joint was too sound to justify him in cutting into it. The operation was abandoned; but the final issue of the case is not stated.

Case IV.—A boy, æt. 6 years, was seen in consultation. His physician stated that for six weeks the boy had had a kind of remittent fever, worse at night, with obstinate constipation. On examination, it was found that the first four molars were pressing against the gums, causing much tension, and that there had been epistaxis. A few days later, the child growing worse, the gums were scarified, a laxative mixture was given, and in two days the attack was concluded.

An important medico-legal point sometimes arises between the eighth and fifteenth year, the inflamed condition of the gums over the bicuspid often giving rise to a purulent discharge from the vagina. The English law treats all illicit sexual intercourse with females under sixteen years of age as rape, and too often such discharges have been received as testimony of the fact.

Of the phenomena associated with dentition between the seventh and fifteenth year, scrofula of the bones, nocturnal incontinence of urine, chorea, and heart-affections are the most common.

Now in regard to the wisdom-teeth:

Case VII.—Mr. V., æt. 23, subject to violent bilious attacks, low-spirited, sleepless, constipated, frequent epistaxis, pain in articulations of lower jaw. None of the wisdom-teeth through. His gums were scarified, and he was ordered to do the same frequently, and to take a little tincture of iron and an infusion of senna. Cured.

Case VIII.—Miss A. D., æt. 18; tall, fair, anæmic, cardiac bruit, violent headaches, profuse epistaxis, irregular menstruation; wisdom-teeth not quite through. Her gums were thoroughly scarified frequently, and quinia and tincture of iron, with senna, as an aperient, were given. Cured.

Case IX.—Miss B., æt. 20; profuse epistaxis, preceded by jaw-ache, approaching phthisis of right lung, quick pulse, loud anæmic cardiac bruit, amenorrhœa, frequent micturition, constipation. Wisdom-teeth had not shown themselves. Her gums were scarified, and she was ordered quinia, iodide of iron, and tincture of digitalis.

Case X.—Miss S., æt. 17; pale and exsanguineous, palpitations of the heart, headaches, constipated bowels, menorrhagia, coated tongue, chlorotic bruit. She had lost great quantities of blood, owing to nervous obstruction at the centre of the circulation, caused by dental irritation from the wisdom-teeth acting directly on the heart. Scarifications, iron, and digitalis effected a speedy and perfect cure.

Case XI.—Mrs. J. M. S., æt. 19; married six months, during which time she has had a colored discharge from the vagina. None of the wisdom-teeth present. Scarifications and tincture of iron gave the happiest results.

Dr. Mulreany proceeds to state that dental irritation

may be the cause of dropsical effusions, both in the chest and abdomen, of heart-affections, of hysterical troubles of the joints, of masturbation, and of sterility and miscarriage, and gives cases in support of his views; but he asks that the physiological irritation of which he speaks shall not be confounded with the pathological irritation of an old, decayed, and carious tooth producing periostitis and gum-boil.

MISCELLANY.

ANALYSES made of beer-yeast and cobra-poison are said to have proved these two substances to be exactly identical in chemical composition. Such an announcement will be a veritable godsend to the anti-bacchanals, with whom it is a favorite device, when bemoaning the follies of their benighted brethren, to exhibit a bottle containing a disagreeable-looking fluid declared by them to be fourpenny ale from which the spirit has been eliminated. The teetotallers, who, like the law, take no notice of extreme trifles, will probably, in their great joy, "overlook the fact that minute quantities of other elements may be present in the yeast and poison respectively, although they elude the grasp of the chemist;" sufficient for them that the same respective quantities of carbon, nitrogen, oxygen, sulphur, and hydrogen are contained in beer-yeast as in the poison of the cobra.—*Food Journal*.

POISONOUS UNIVALVES.—Seven individuals who had eaten snails at dinner were, so says the *Montpellier Medical*, affected with sickness, diarrhœa, giddiness, fever, etc. No doubt could be entertained as to the cause of the poisoning. The seven persons had all eaten of the snails, whereas they had not all eaten of the other dishes served up at the dinner. The pan in which the snails had been cooked was in perfect condition, and had been freshly tinned. The poisoning, therefore, took place through the snails themselves. It is well known that they often feed on poisonous plants, such as belladonna, digitalis, and hemlock, and on the fields from which the snails had been gathered were found boxwood, euphorbia, and prickwood. It is on account of this that snails gathered to be eaten are generally submitted to a few days' previous fasting.—*Food Journal*.

AFTER a brief life, the *Canadian Medical Times* has passed out of existence, as a child born out of due time. The mania for losing money in medical journals still continues, however, and we have just received the first number of a new bi-monthly, the *Vermont Medical Journal*.

NOTES AND QUERIES.

As Centennial news and reminiscences are at present the rage, we print the following letters, for which we are indebted to Dr. Walter F. Atlee: they show what kind of intermittents they had in the good old times. Mrs. Cox was the wife of Colonel Cox, the intimate friend of Mr. Reed, of Revolutionary memory.

"BURLINGTON, 3d October, 1776.

"MY DEAR FRIEND,—As you must have heard by Mr. Cox of my afflictions in the sickness of my children, so I take the first opportunity

in my power to communicate the happiness I feel upon their recovery. I know you'll partake a parent's joy in seeing a beloved child restored to life after all hope was fled—that child nearly arrived to the age of woman, & just discovering what the woman would be, & to do her justice, she was what we wished her to be, a few things excepted, which time, I doubt not, will rectify. To see her in violent convulsions for thirty hours, near which period she seemed breathing her last, was almost too much to bear. She had, as well as the rest, the intermitting Fever, tho' indeed hers did not intermit at all for 17 days, only remitted when she was suddenly seized with a fit, which lasted as above mentioned, when she gradually & insensibly fell into a sound sleep which lasted thirty Hours more, during which time she never spoken nor showed any signs of reason. The fourth day her recollection returned, and also her feeling of the sorest Blister I ever saw. This day is a fortnight since the fits came on, and she is now able to sit up in her Chair good part of the day. Little Molly is well; she was the only one that escaped the Fever. The others are in a fair way now; indeed, Kitty seems quite well. What a favor I esteem it that I have kept well & able to nurse them! I have had five at a time down in the Fever. One of my maids was taken a few days ago; she is very bad. I hope tho' soon to have the pleasure of saying we are all well again. Can I enough admire the goodness and the Power of God? He brought my first-born to the brink of the grave, & then restored her as a new gift me. Surely her Life is preserved for some valuable purpose. Oh, may she improve these added years in the service of her Maker, & may I have a thankful Heart for all His favors. I had to send for Mr. Cox from the Furnace. The shock was almost too much for him. I never saw him in such distress; I was forced to try to forget my own sorrow to comfort him. But the Almighty has been pleased to comfort us both in returning to Life our Child. I know you will excuse my dwelling so long on this subject, but I will now change it, & wish I could give you any information of our Friends to the Eastward, but not one word have I heard from them these several months. I intend to try if I can get a Letter answered by the Post; I think through Mr. Reed I may. Mrs. Reed was yesterday Deliver'd of a Daughter. Poor little woman! she has much to struggle with. Mr. Reed was a dangerous Post, & his absence at this time is peculiarly distressing. He has had three narrow escapes for his Life; his Horse Shot under him; he only left a House five minutes before the regulars were in Possession of it, & in endeavouring to make a flying Lieut. return to his Duty the man Level'd his musket at him, which luckily flashed without going off. He was try'd and sentenced to be shot, when upon the day of execution everything was prepared with the greatest solemnity, the man was upon his knees expecting the Ball. The general was prevail'd upon to Pardon him, which so overcame him he had like to have Died with the joy. This I had from Mr. Montgomery, who was present. As to news, I can tell you none but what the Papers will convey before this reaches you. I believe they are in daily expectation of a Battle. What a dreadful Fire there has been in N. York. Oh, this war! What Devastation does it make! Where or when will our troubles end? The Cloud is darker, methinks, than ever, tho' the Politicians don't think so or won't say so. Oh, Sweet Peace, when wilt thou bless our Land again? "I have not heard from you in a long time; pray write soon, and be assured that however I may be taken up for a time with my own affairs, I am no less than ever your truly affect. friend & Sister,

"E. Cox."

"BATSTO, January 6, 1777.

"MY DEAR FRIEND,—Various have been my places of abode since last I wrote to you. I was hurried from Philadelphia at an hour's warning; pack'd up and sent off chief of my goods the same day I got home, but as the enemy was no further than Brunswick, I prevail'd upon Mr. Cox to let me stay with the family and such things as we could not do without till the necessity was greater for moving; I could not bear the thought of being where I could not hear from him; he left me and join'd his Batt'n at Trenton, but they were soon oblig'd to leave it, & recross the Delaware. He wrote me from there to go off immediately, as the enemy would probably be down our side of the river, & so it proved; the day after we left Mount Holly the Hessians were in it. I did not care to come here lest the Furnace might draw them to destroy it, as they were told it had been making ball during the war. I was in a great strait where to go. If I could have got over to Pennsylvania I should certainly have gone to Lancaster, but Teams were not to be got there; here we had them plenty. I fix'd half-way between Burlington and this place. I had not been there a week when I was inform'd by good authority that they had been within three miles of me. I then for the first time lost my courage; for an hour or two I was completely wretched. The manager of the furnace, who had been my helper through all the difficulty of moving, was gone to philada. I was on the roadside & had all my valuable effects in the house; I recollected that desponding was not the way to deserve help; I therefore

sent immediately for a team, loaded it with my best things and sent it off. In the evening the manager came. Mr. Cox sent off an Express to me to go from there without loss of time, & not content with that, ventur'd to come himself in the night at a great risque to hurry me away. By ten o'clock the next day our waggons were all loaded, and we sat off, intending not to have stop'd more than a night here, but to have gone many miles further; but my poor Rachel was taken ill again, & I was oblig'd to return with her to our friends—who had taken a Large house a few miles from where we were, in a by-place, where they continue still. I mean Mr. Pettit and Mrs. Reed, who had join'd families—in a few days she got better & we came here, & hearing the Enemy did not come further I ventured to stay, & now have the happiness to hear our Army has drove them back. Oh, may the God of Battles grant them further Success, & make our Enemies fly before them! How is my heart torn with conjectures of the fate of my other self; he was in the Battle of last thursday, at trenton, and was well afterward, but how he fared in the one at princeton the day after, God only knows. I am a miserable being at present, and shall not be otherwise till I hear of his safety. You can have no Idea of the Scenes that are every day exhibited in this part of the world—barns burnt, fences torn up, cattle drove off, women & children used ill by the Hessians when they ask for a thing and are answer'd, they have none; the bayonet is presented to their breasts, & go & get it then, is the reply, with some smart strokes of a Hickory. This I was told by a gentleman in whose house they had taken quarters, and they oblig'd him to keep two men attending the fire all night; they would not fetch themselves a stick of wood, but said the rebels should wait upon them. Many other instances I could relate that would shock you. I have seen several people that have been among them—some who got their protection. The Head Officers behaved polite, but the under ones & the soldiers most barbarously; in some houses they did not leave even a Child's petticoat nor any one wearable unstoln. I should have wrote you before, but have had a bad whitlow on my thumb; indeed, writing is my only amusement. I have received many favors from my Burl'n friends, and have been under a necessity of writing a good deal to beguile the tedious hours by it, & if I could receive a line from you it would help me to bear this Exile with patience. I will not further enumerate the troubles I've gone through; your sympathizing heart will too sensibly tell you. Peace has ever been my most ardent wish; it is so still could it be upon honorable terms. I think it might be obtained, but I am no politician. I must leave these matters, & can only now add my best respects to your good man and family. Two of my children are still unwell. Adieu.

"Your friend,
"E. Cox."

WE thank the profession for the liberality with which they have responded to the appeal for aid in building a monument to the memory of the Memphis physicians who fell a victim to yellow fever, and acknowledge the receipt of one dollar each from Dr. S. Littell and H. C. W., Jr.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

In reading the *Times* of January 17, I find a criticism on my article on "Hymen," published in a former number. Now, I would say in answer to Dr. Bernardy, that the case was in every respect as I reported it, but I should have stated that the hymen gradually gave way under pressure, until it did not offer much resistance to the passage of the child's head; although it is probable that fibres of the membrane were ruptured, and continued to give way until dilatation was sufficient for the child to pass. And it is possible that rupture may have taken place after the membrane became dilated, and was unnoticed. I thought dilating preferable in this case to incising, as it is less liable to produce hemorrhage. Ramsbotham, in his work on Obstetrics (page 248), says of the treatment of these cases, "The aperture must be dilated if possible by mechanical means." So it is not thought impossible for a hymen to be dilated sufficiently for labor to be completed.

CHARLES W. BROWN, M.D.

MANSFIELD, PENN., January 19, 1874.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JANUARY 20, 1874, TO JANUARY 26, 1874, INCLUSIVE.

GIBSON, J. R., ASSISTANT-SURGEON.—Granted leave of absence for forty days. S. O. 2, Division of the South, January 20, 1874.

TAYLOR, M. K., ASSISTANT-SURGEON.—Assigned to duty at Fort Stockton, Texas. S. O. 8, Department of Texas, January 15, 1874.